PROPOSED USE OF PLENARY POWERS TO CONSERVE CERTAIN JUNIOR SYNONYMS IN THE FAMILY PYGOPIDAE (BRACHIOPODA). Z.N.(S.)2300

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The purpose of the present application is to request the Commission to use its plenary powers in the interests of nomenclatural stability by establishing *Terebratula triangulus* Valenciennes in Lamarck, 1819, *Terebratula diphya* von Buch, 1834, *Terebratula catulloi* Pictet, 1867 and *Terebratula janitor* Pictet, 1867 as the nomenclaturally valid names of their respective species.

2. Buckman's 1906 paper on brachiopod homoeomorphy needs to be mentioned at the outset. Buckman's concept of a species in this paper was an extremely narrow one, leading him to require a specific name for almost every small shape variation. Consequently he considerably confused the nomenclatural issue by recognizing as separate and valid every name that had ever been given to a pygopid brachiopod.

A. *Terebratula triangulus* Valenciennes *in* Lamarck, 1819.

3. Bruguière, 1792, p. 424, named and figured a brachiopod as *Terebratula pileus*. In 1797 (pl. 241, fig. 1 a–c) he reproduced the figure but without a specific name. Valenciennes, in Lamarck, 1819, p. 250, presumably in ignorance of Bruguière's 1792 paper, gave the name *Terebratula triangulus* to the 1797 figure. *Terebratula pileus* Bruguière, 1792 is therefore a senior objective synonym of *Terebratula triangulus* Valenciennes, 1819.

4. Parkinson, 1811, figured as *Terebratulites triquetrus*, two specimens, one of which (p. 229, pl. 16, fig. 8) is undoubtedly conspecific with *T. pileus* Bruguière. The synonymy of *T. triquetrus* Parkinson with *T. pileus* Bruguière was recognized by Buckman, 1906 and Jarre, 1962. The synonymy of *T. triquetrus* Parkinson with *T. triangulus* Valenciennes was recognized by Davidson, 1850, Pictet, 1867, Buckman, 1906 and Jarre, 1962. *Terebratulites triquetrus* Parkinson, 1811 pars, is therefore a senior subjective synonym of *Terebratula triangulus* Valenciennes, 1819.

5. The specific name *triquetrus* has not been used as the valid specific name by any author except Buckman, 1906; *pileus* has been used only by Bronn, 1849 and Buckman, 1906. The great majority of authors have used *triangulus*. In the fifty years 1928–1978 no use of either *triquetrus* or *pileus* has been discovered, while authors using *triangulus* as the valid name during that period include: Fallot, 1934; Roman, 1936; Goĉanin, 1938; Trauth, 1948; Jarre, 1962; Fülop, 1964; Geyssant, 1966; Vogel, 1966; Ager, 1975, and Nowak, 1976.

B. *Terebratula diphya* von Buch, 1834

6. *Concha diphya* Fabius Columna, 1606, has been taken by most authors to denote the central specific concept among the PYGOPIDAE. This name, however, is pre-Linnean and it is, in any case, difficult to decide what species Columna's figure (1606, p. 36) is intended to depict. The earliest post-Linnean author to use the name was von Buch, 1834, as *Terebratula diphya* (p. 88; pl. 1, fig. 12). However there were earlier post-Linnean names for the species. Parkinson, 1811, p. 229; pl. 16, fig. 4, under the name *Terebratulites triquetrus*, figured a specimen which could well be of this species, in addition to the specimen referred to in the previous section. Valenciennes, in Lamarck, 1819, p. 250, gave the name *Terebratula deltoidea* to an unnamed figure published by Bruguière, 1797, pl. 240, fig. 4. Catullo, 1827, p. 169, pl. 5, figs. p, r, s, t. gave the name *Terebratula antinomia* to what is probably the same species (the figures are poor). It is clear that von Buch intended his *Terebratula diphya* 1834 to denote the same species as *Concha diphya* Columna and *Terebratula deltoidea* Valenciennes, since in 1834 he reproduced Columna's figure and cited *T. deltoidea* Lamarck in synonymy, while in his 1838 paper (p. 196, pl. 18, fig 9) he reproduced as *T. diphya* Bruguière's 1797 figure upon which Valenciennes had based *deltoidea*. *T. deltoidea* Valenciennes, 1819 can thus claim to be a senior objective synonym of *T. diphya* von Buch, 1834 and a senior subjective synonym of *T. antinomia* Catullo, 1827. Von Buch presumably considered *diphya* to have priority. These synonymies were all recognized by Pictet, 1867, who nevertheless employed *diphya* as the valid name. *Terebratulites triquetrus* Parkinson, 1811, pars is a senior subjective synonym of *Terebratula diphya* von Buch, 1834.

7. Apart from Buckman, 1906, p. 445, few authors have used any other names but *diphya* for this species. Catullo, 1841, p. 238, pl. 2, fig. 3; 1851, p. 75, fig. 3, and Zejszner, 1846, p. 24, used *deltoidea*, but the vast majority of authors have continued to use *diphya*. In the fifty years 1928–1978 authors who have used *diphya* as the valid name include: Gerber, 1930; Fallot, 1931 & 1934; Lacoste, 1934; Dalloni, 1936 & 1952; Marçais & van Leckwijck, 1936; Calembert, 1937 & 1952; Rod, 1946; Trauth, 1948; Glaçon, 1952; Gignoux, 1955; Kotanski & Radwanski, 1959; Christ, 1960; Jarre, 1962; Birkenmajer, 1963; Hölder, 1964; Geyssant, 1966; Vogel, 1966; Barczyk, 1972; Desio, 1973 and Ager, 1975. Ager, 1975, p. 156, used both *diphya* and *deltoidea* in a manner which implies uncertainty about validity, presumably in the light of Muir-Wood's action discussed below.

8. The name *deltoidea* could be safely regarded as in complete disuse but for Muir-Wood's resurrection of it in the Treatise (1965, p.H 802) with the clear intention of establishing it as the valid name of the species. It appears desirable to conserve the name *diphya*; (a) because of its great historic interest as being by far the oldest brachiopod specific name still in common use (and possibly with its original connotation), and (b) because its long-continued employment by the great majority of authors as the valid name would be succeeded by nomenclatural confusion if it were now to be replaced by *deltoidea*.

C. *Terebratula catulloi* Pictet, 1867

9. Catullo, 1851, p. 75, fig. 4, established a species *Antinomia dilatata*. Pictet, 1867, p. 171, pls. 32, 33, redescribed *dilatata*, using Catullo's specific name, but decided against adopting his generic name and called the species *Terebratula dilatata*. Later (1867, p. 202) Pictet realised that he had created a secondary homonym of *Terebratula dilatata* Lamarck and *Terebratula dilatata* Sowerby, so he changed the name of the species to *Terebratula catulloi*. Since this change of name, however unnecessary it may have been, was made before 1961, the name *catulloi* must, under Article 59b (i), be accepted as the valid name of the species unless it can be shown to be contrary to existing usage.

10. However there are earlier names which are believed to refer to this species. Authors who have considered the matter have taken *A. dilatata* Catullo, 1851 to be synonymous with *Terebratula antinomia* Catullo, 1829, p. 317, pl. 5, fig. 5 (Jarre, 1962, p. 58) and *T. catulloi* Pictet, 1867 to be synonymous with *T. antinomia* Catullo, 1829 (and 1841, p. 237, pl. 2, fig. 2, a reproduction of the 1829 figure) (Buckman, 1906, Jarre, 1962). Still earlier, Bruguière, 1792, p. 425, figured as *Terebratula cor* a specimen which is probably the same species (Buckman, 1906, p. 442, Jarre, 1962, p. 58). *Terebratula cor* Bruguière 1792 and *Terebratula antinomia* Catullo, 1829 are therefore senior subjective synonyms of *Terebratula catulloi* Pictet, 1867.

11. *Terebratula cor* Bruguière and *Terebratula antinomia* Catullo are completely forgotten names. Catullo, 1827, pl. 5, figs. p, r, s, t, had also used *Terebratula antinomia* for a form which Jarre, 1962 and the present author have considered the same as von Buch's *Terebratula diphya*; another case of subjective synonymy which threatens nomenclatural stability. As to whether *dilatata* or *catulloi* constitutes the name in existing usage, the position is that during the fifty years 1928–1978 Jarre, 1962; Muir-Wood, 1965; Geyssant, 1966; Vogel, 1966 and Ager, 1975 have used *catulloi*, while Fallot, 1931 & 1934; Fülop, 1964 and Hölder, 1964 have used *dilatata*. There seems to be no case for claiming that Article 59b (i) should be set aside by existing usage. It should be noted that *Terebratula cor* Valenciennes in Lamarck, 1819 is a completely different species from its senior homonym *Terebratula cor* Bruguière, 1792. Davidson, 1850 examined the type specimen of the former and considered it to be synonymous with *Terebratula numismalis* Valenciennes in Lamarck, 1819. *T. numismalis* was made type species of the genus *Cincta* Quenstedt by Dall, 1877, p. 20 by subsequent designation.

D. *Terebratula janitor* Pictet, 1867

12. The only threat to the stability of this name arises from Buckman's resurrection (Buckman 1906, p. 446) of the name *Terebratula duvalii* Newman, 1844. That this is a senior subjective synonym of *T. janitor* Pictet, 1867 was recognized by Buckman, 1906, as regards at least one of Pictet's figured specimens. Jarre, 1962 and the present author agree that the two species are one and the same. Apart from Buckman's reference no

author has used *duvalii*. Authors who have employed *janitor* as the valid name for this species during the fifty years 1928–78 include, among many others: Gerber, 1930; Fallot, 1931 & 1934; Lacoste, 1934; Marçais & van Leckwijck, 1936; Goĉanin, 1938; Rod, 1946; Dalloni, 1952; Glaçon, 1952 and Hölder, 1964.

E. Conclusions

13. In order to establish *Terebratula triangulus* Valenciennes, 1819, *Terebratula diphya* von Buch, 1834, *Terebratula catulloi* Pictet, 1867, and *Terebratula janitor* Pictet, 1867, as the nomenclaturally valid names for their respective species, the International Commission on Zoological Nomenclature is hereby asked:

(a) to use its plenary powers
- (i) to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy, the specific names (1) *pileus* Bruguière, 1792, as published in the binomen *Terebratula pileus*, and (2) *deltoidea* Valenciennes in Lamarck, 1819, as published in the binomen *Terebratula deltoidea*;
- (ii) to suppress the specific name *cor* Bruguière, 1792, as published in the binomen *Terebratula cor*, for the purposes of both the Law of Priority and the Law of Homonymy;
- (iii) in each of the following cases to give nomenclatural precedence to the junior name over the senior name whenever the two are regarded as synonyms:
  - (1) *Terebratula triangulus* Valenciennes in Lamarck, 1819, over *Terebratulites triquetrus* Parkinson, 1811;
  - (2) *Terebratula diphya* von Buch, 1834 over *Terebratulites triquetrus* Parkinson, 1811, and *Terebratula antinomia* Catullo, 1827;
  - (3) *Terebratula catulloi* Pictet, 1867 over *Terebratula antinomia* Catullo, 1827;
  - (4) *Terebratula janitor* Pictet, 1867 over *Terebratula duvalii* Newman, 1844;

(b) to place on the Official List of Specific Names in Zoology
- (i) the specific name *triangulus* Valenciennes, 1819, as published in the binomen *Terebratula triangulus*;
- (ii) the specific name *diphya* von Buch, 1834, as published in the binomen *Terebratula diphya*;
- (iii) the specific name *catulloi* Pictet, 1867, as published in the binomen *Terebratula catulloi*;
- (iv) the specific name *janitor* Pictet, 1867, as published in the binomen *Terebratula janitor*

each with an endorsement that it is to be given nomenclatural precedence over its senior synonym or synonyms mentioned in (v) to (vii) below;

(v) the specific name *triquetrus* Parkinson, 1811, as published in the binomen *Terebratulites triquetrus*;

(vi) the specific name *antinomia* Catulloi, 1826, as published in the binomen *Terebratula antinomia*;

(vii) the specific name *duvalii* Newman, 1844, as published in the binomen *Terebratula duvalii*

each with an endorsement that it is not to be given priority over its junior synonym or synonyms mentioned in (1) to (iv) above;

(c) to place on the Official Index of Rejected and Invalid Specific Names in Zoology

(i) *pileus* Bruguière, 1792, as published in the binomen *Terebratula pileus* and

(ii) *deltoidea* Valenciennes in Lamarck, 1819, as published in the binomen *Terebratula deltoidea*

both as suppressed under the plenary powers in (a) (i) above;

(iii) *cor* Bruguière, 1792, as published in the binomen *Terebratula cor*, as suppressed under the plenary powers in (a) (ii) above.

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